

Fuel Cell Projects Kickoff Meeting

Agenda

February 13, 2007

9:00 Welcome and Program Overview

Pat Davis
Nancy Garland

Membranes

9:20 Membranes and MEA's for Dry, Hot Operating Conditions

S. Hamrock, 3M

9:40 New Polyelectrolyte Materials for High Temperature Fuel Cells

J. Kerr, LBNL

10:00 The Design of Novel Materials Consisting of a Semi-Interpenetrating Network of PVDF and a Sulfonated Polyelectrolyte

M. Foure, Arkema

10:20 Break

Water Transport Studies

10:50 Visualization of Fuel Cell Water Transport and Performance Characterization under Freezing Conditions

S. Kandlikar, RIT

11:10 Water Transport in PEM Fuel Cells: Advanced Modeling, Material Selection, testing, and Design Characterization Research

V. Cole, CFD

11:30 Subfreezing Start/Stop Protocol for an Advanced Metallic Open-Flowfield Fuel Cell Stack

J. Cross, Nuvera

11:50 Water Transport Within the Stack: Water Transport Exploratory Studies

R. Borup, LANL

12:10 Lunch

Catalyst Development

1:30 Advanced Cathode Catalysts and Supports for PEM Fuel Cells

M. Debe, 3M

1:50 Highly Dispersed Alloy Cathode Catalyst for Durability

T. Jarvi, UTCFC

2:10 Advanced Cathode Catalysts

P. Zelenay, LANL

2:30 Non-Platinum Cathode Electrocatalyst based on Bimetallic Base Metal-Noble Metal Systems

D. Myers, ANL

2:50 Development of Alternative and Durable High Performance Cathode Supports for PEM Fuel Cells

Y. Wang, PNNL

3:10 Break

Innovative Fuel Cell Concepts

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| 3:40 | Aligned Carbon Nanotube-Based MEA and PEMFC | D-J Liu, ANL |
| 4:00 | Light Weight Low Cost PEM Fuel Cell Stacks | J. Wainright, CWRU |
| 4:20 | Adaptive Stack with Subdivided Cells for Improved Stability, Reliability, and Durability Under Automotive Load Cycle | B. Du, Plug Power |
| 4:40 | Low-Cost Manufacturable Microchannel Systems for Passive PEM Water Management | S. Stenkamp, PNNL |

February 14, 2007

Cell Hardware

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| 8:30 | Next Generation Bipolar Plates for Automotive PEM Fuel Cells | O. Adrianowycz, GrafTech |
| 8:50 | Nitrided Metallic Bipolar Plates | P. Tortorelli, ORNL |
| 9:10 | Low Cost Durable Seals | G. Roberts, UTC Power |

Reporting Requirements

9:30 Golden Field Office

9:40 Break

Impurity Studies

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| 10:00 | Effects of Impurities on Fuel Cell Performance and Durability | T. Molter, U. Conn |
| 10:20 | Effects of Impurities on Fuel Cell Performance and Durability | J. Goodwin, Clemson |
| 10:40 | Effects of Impurities on Fuel Cell Performance and Durability | F. Garzon, LANL |

Demonstrations

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| 11:00 | International Stationary Fuel Cell Demonstration | J. Vogel, Plug Power |
| 11:20 | Development and Demonstration of a New Generation High Efficiency 2 kW Combined Heat and Power Unit | K. Durai-Swamy, Intelligent Energy |
| 11:40 | Intergovernmental Stationary Fuel Cell System Demonstration | M. Parsons, Plug Power |